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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,532	11/09/2001	Jedrick J. Weldon	09710-1111	5779

25537 7590 03/19/2004

WORLDCOM, INC.
TECHNOLOGY LAW DEPARTMENT
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EXAMINER	
HYUN, SOON D	
ART UNIT	**PAPER NUMBER**
2663	

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/986,532	WELDON ET AL.	
	Examiner	Art Unit	
	Soon-Dong Hyun	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *26* is/are allowed.

6)☒ Claim(s) *1-18 and 21-25* is/are rejected.

7)☒ Claim(s) *19 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-18 and 21-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 1 is objected to because of the following informalities.

In line 7, "data" before "packet" should be deleted to avoid lack of antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-3, 5, 7, 9-12, 14 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pogrebinsky (U.S. Patent No. 6,445,661) in view of Schuster et al (U.S. patent No. 6,512,761).

Regarding claims 1, 9, 22, and 23, Pogrebinsky discloses a method and a system measuring delay parameters in a packet switching network between node A and node B, i.e., each node is a probing router, the method comprising the steps of:

forwarding a packet (a probe packet P1) to a destination node B of the packet communication network (FIG. 6) that is reachable by any one of a plurality of connectionless communication paths in the Internet, wherein the packet traverses a communication path among the plurality of connectionless communication paths in the Internet to the destination node; and

generating and sending a probe message over a connectionless communication path for determination of delay parameters (statistics of the communication network) for the packet. See col. 2, line 6-col. 4, line 51. Pogrebinsky does not explicitly teach a structure of each node and a computer-readable medium, but a routing engine, a probe mechanism and a computer-readable medium are inherently required in each node to implement the steps.

However, Pogrebinsky does not teach that the connectionless path for the probe message is a particular communication path traversed by the packet.

Schuster et al discloses an communication system via Internet, wherein a particular communication path is determined based on the lowest delay and/or jitter for transmission a packet and the parameters regularly are measured , see FIG. 5, and col. 15, lines 5-65.

Those of skill in the art would have been motivated by Schuster et al to select a particular connectionless path for the packet transmission of Pogrebinsky based on the lowest delay/jitter

of Schuster et al and thus, to send a probe message over the particular path to regularly monitor the parameters whether the parameters are in effect.

Therefore, it would have been obvious to one having ordinary skill in the art to select a particular connectionless path for a packet and a probe message for the Pogrebinsky to improve the quality of the communications.

Regarding claims 2, 5, and 10-12, Pogrebinsky further discloses that the probe message is sent at time TA1 (T1) and the probe mechanism receives a reply probe message (P2) at a second time, TA2 (T2), sent by the destination node in response to receiving the probe message with a remote latency indicator (a slight later time than TB1, i.e., a processing time at node B, see col. 3, line 60) therein so that service level agreement characteristics may subsequently be derived by comparing T1, T2 and the remote latency indicator.

Regarding claim 3, Pogrebinsky does not explicitly teach a memory storing the delay parameters (the service level agreement characteristics) identified by the probe mechanism, but the memory is inherently required to implement the steps.

Regarding claim 6, refer to the discussion for the claim 7. However, Pogrebinsky does not teach that a polling interval at which the probe mechanism sends the probe message is programmable. It would have been obvious to one having ordinary skill in the art to make the program (a computer-readable medium) of Pogrebinsky including the polling interval to be programmable to adjust the program according to various occasions and to take advantage of using a software.

Regarding claim 7, Pogrebinsky does not explicitly teach a probe poller device that calculates the delay parameters (the service level agreement characteristics), but the device is inherently required to implement the steps.

Regarding claim 14, refer to the discussion for the claims 1 and 7. Pogrebinsky does not explicitly teach a reporting mechanism, coupled to the probe poller as recited in the claim. The report mechanism is inherently required for Pogrebinsky, because the measured parameters are used to optimize the network utilization, see col. 1, lines 16-18.

Regarding claim 16, Pogrebinsky does not explicitly teach that the node A is located within a customer premise. It would have been obvious to one having ordinary skill in the art to locate the node A within a customer premise without deviating from the broad principal and sprit of the present invention.

Regarding claims 17 and 18, Pogrebinsky does not explicitly teach that the node A comprises a display means as recited in the claim. It would have been obvious to one having ordinary skill in the art to comprise the display means for an operator of the node to check the parameters visually and print the measurements through a web interface connected to the Internet.

Regarding claims 24 and 25, Pogrebinsky teaches the Internet between node A and node B, i.e., the probe packet is transferred with a source IP address and a destination address via the Internet which comprises a source router and a destination router that is associated with a predetermined location.

6. Claims 4, 8, 13, 15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pogrebinsky (U.S. Patent No. 6,445,681) in view of Schuster et al (U.S. patent No. 6,512,761) and Casey (U.S. Patent No. 6,493,349).

Regarding claims 4, 13, and 15, refer to the discussion for the claims 1, 9 and 14.

However, Pogrebinsky does not explicitly teach that the Internet between node A and node B comprises virtual private network architectures.

Casey discloses a communication network to offer service level agreements relating to delay, packet loss etc. for an IP VPN, wherein tunneling (channel) is a one of various mechanism used for the IP VPN. See col. 3, line 26-65. Those of skill in the art would have been motivated by Casey to incorporate the IP VPN scheme into Pogrebinsky to measure delay parameters for an IP VPN. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a tunnel channel in a virtual private network into Pogrebinsky to measure delay parameters for an IP VPN.

Regarding claims 8 and 21, refer to the discussion for the claim 7.

However, Pogrebinsky does not teach a packet loss rate for measuring the delay parameters. Casey discloses a communication network to offer service level agreements relating to delay, packet loss etc. for an IP. See col. 3, line 26-65. Those of skill in the art would have been motivated by Casey to incorporate a packet loss rate into Pogrebinsky to optimize network utilization.

Allowable Subject Matter

7. Claim 26 is allowed.

8. Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon-Dong Hyun whose telephone number is (703) 305-4550. The examiner can normally be reached on Monday-Friday from 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached on (703) 308-5340.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

10. Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to: 703-872-9306 for formal communications intended for entry with a label of "OFFICIAL" and for informal or draft communications with a label of "PROPOSED" or "DRAFT" (attn: Art Unit 2663, Soon-Dong Hyun).

S. Hyun

03/16/2004

ANDY LEE
PATENT EXAMINER